CLAIMS

What is claimed and desired to be secured by Letters Patent is as follows:

1. A sleeve for a length of flexible duct, which comprises:

   a) first and second ends;

   b) a passage extending between and open at said ends, said passage selectively receiving the length of flexible duct;

   c) a frame generally conforming to the exterior shape of the flexible duct and including first and second frame sections; and

   d) a frame fastener for securing said first and second frame sections together with the length of flexible duct located in said passage.

2. The invention of claim 1 wherein said frame has a longitudinal axis extending between said sleeve ends and a curved configuration curving through an angle in the range of approximately 15 degrees to 180 degrees.

3. The invention of claim 2 wherein said sleeve ends lie in respective planes generally perpendicular to said sleeve axis.

4. The invention of claim 2 wherein said frame includes inner and outer radius arcs extending between said sleeve assembly ends.

5. The invention of claim 4 wherein said frame sections are joined together along at least one of said radius arcs.

6. The invention of claim 5 wherein said sections are joined together along both of said radius arcs.

7. The invention of claim 4 wherein said radius arcs are generally parallel to said longitudinal axis.

8. The invention of claim 3 wherein:

a) said frame includes first and second end rings located at said sleeve first and second ends respectively and an intermediate ring located intermediate said first and second end rings; and

b) a plurality of longitudinal members extending between and connecting said rings, said longitudinal members extending in generally parallel relation with respect to said longitudinal axis.

9. The invention of claim 8 wherein each said ring comprises a pair of ribs, each said rib being located in a respective frame section.

10. The invention of claim 8, which includes:

a) an inner radius arc longitudinal member located along said inner radius arc and an outer radius arc longitudinal member located along said outer radius arc.

11. The invention of claim 10, which includes:

a) a pair of side longitudinal members each located at a respective side of said sleeve and each being part of a respective frame section.

12. The invention of claim 1 wherein said frame fastener includes:

a) a tab with first and second tab halves each mounted on a respective frame section; and

b) a coupling selectively receiving said tab halves with said fastener assembly in a closed configuration thereof.

13. The invention of claim 1 wherein each said frame section includes a solid, continuous exterior surface.

14. The invention of claim 11 wherein each said frame section includes a pair of side edges and a pair of side longitudinal members located adjacent thereto, said frame sections being fastened together along respective adjacent side edges.

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15. The invention of claim 9, which includes:

a) a plurality of loops each mounted on a respective rib of a respective end ring; and

b) a pair of ties each encircling a respective end ring, said ties being received in said loops.

16. The invention of claim 1, which includes:

a) said frame comprising plastic;

b) said frame fastener comprising first and second notched latch members each mounted on a respective frame section; and

c) said frame fastener having an open configuration with said latch members disengaged and a closed configuration with said latch members engaged.

17. The invention of claim 8 wherein said rings and longitudinal members comprise sheet metal.

18. In combination with an air handling system of a heating, ventilating and air conditioning system including a supply duct, a diffuser and a length of flexible duct interconnecting same and including an arcuate bend, the improvement of a sleeve assembly which comprises:

a) a frame including:

1) opposite first and second ends;

2) an inner radius arc extending between said ends;

3) an outer radius arc extending between said ends;

4) an arcuate longitudinal axis extending between said ends in generally parallel relation with respect to said arcs;

5) a plurality of annular rings, including a first end ring located adjacent to said frame first end, a second end ring located adjacent to said frame second end and an intermediate ring located between said end rings;

6) each said ring lying generally in a plane perpendicular to said longitudinal axis;

7) each said ring comprising an inner rib of said inner radius frame section and an outer rib of said outer radius frame section;

8) each said frame section including a pair of arcuate side edges; and

9) a passage extending between and open at said ends, said passage receiving said flexible duct; and

b) a plurality of fastener subassemblies each mounted on said frame adjacent to said section side edges, each said fastener subassembly having an open position with said frame sections disengaged and a closed position with said frame sections engaged.

19. The invention of claim 18, which includes:

a) at least one of said end rings including a plurality of receivers; and

b) a plurality of mounting screws each located in a respective ring receiver and adapted for fastening said sleeve assembly to said flexible duct and/or said diffuser.

20. The invention of claim 18, which includes:

a) said sleeve assembly comprising an elbow-configuration sleeve assembly with the first end of the frame thereof fastened to said diffuser; and

b) a straight configuration sleeve assembly with first and second frame ends, said first end being connected to said elbow-configuration sleeve assembly frame second end; and

c) said sleeve assemblies receiving said flexible duct.